CLAIMS

1. Process for the manufacture of a digital color picture from an original, comprising the steps of photoelectrically scanning the original by way of a color-enabled scanning device for obtaining scanning data, forming the digital color picture from the scanning data, transforming the digital color picture by way of a color transformation for achieving a colorimetric correspondence between the digital color picture and a reference color test picture, and one of storing the transformed digital color picture in a preselected format and recording the digital color picture on a data carrier medium.

2. Process according to claim 1, wherein the steps of transforming are carried out according to color management principles by using a specific profile which describes the combination of the type-specific colorimetric properties of the original and the specific transfer function of the scanning device.

3. Process according to claim 2, comprising the further step of providing a profile for each of a number of combinations of different original types and different scanning devices, and wherein the step of transforming is carried out with that profile which belongs to the actually used scanning device and the actual original type used.

4. Process according to claim 3, wherein the step of providing the profile includes the steps of respectively assigning the different original types according to similarities in colorimetric properties to one of a number of original categories, setting one original type for each original category as master original, providing a separate profile for each combination of master original and different scanning device, and wherein the step of transforming is carried out with that profile which belongs to the actually used scanning device and to that master original which belongs to the original category to which the actual photographic original belongs.

5. Process according to claim 4, wherein different assignments of original types to the original categories are formed for different quality requirements and used for the selection of the respective profile.

6. Process according to claim 3, including the further steps of providing test originals of the individual original types for the assignment of the different original types to the

original categories, the test originals carrying a test image having several color measurement fields measuring the color values of the color measurement fields, comparing the color measurement data of the test originals and assigning the original types based on the comparison of the color measurement values.

7. Process according to claim 1, comprising the further steps of selecting one original type as superior reference original type, making a physical analog color test card as reference color test image from an original of the reference original type, the test card including a color measurement card, and using this reference color test image for creating the profile.

8. Process according to claim 2, including the further steps of carrying out a quality control from time to time using the test originals, by colorimetrically comparing digital test color pictures produced from the test originals with corresponding reference test color pictures, determining a quality measurement from the color differences, and newly creating the profiles when the quality measurement exceeds a preselected threshold value.

9. Process according to claim 2, including the steps of treating the original which is an exposed photographic original material, by wet chemistry prior to the scanning, and incorporating the wet chemistry treatment of the original material into the formation of the profile.

10. Apparatus for the manufacture of a digital color picture, comprising a color-enabled scanning device for photoelectrically scanning the original to obtain scanning data and a computer for forming the digital color picture from the scanning data obtained in a preselected data format, the computer cooperating with the scanning device and storing the digital color picture and recording it on a data carrier medium, the computer subjecting the digital color picture prior to the storage or recording to a color transformation for transforming the color space defined by the combination of the type specific colorimetric properties of the original and the specific transfer function of the scanning device used, so that a colorimetric correspondence between the digital color picture and a reference color test picture is achieved.

11. Apparatus according to claim 10, wherein the computer is constructed for carrying out the color transformation according to color management principles by using a specific profile which describes the combination of the type specific colorimetric properties of the original and the specific transfer function of the scanning device used.

12. Apparatus according to claim 11, wherein the computer comprises means for respectively storing one profile for one of a number of combinations of different types of originals with different scanning devices, means for recognizing the actually used scanning device and the type of the actual original on the basis of information in relation thereto, whereby the computer is constructed for carrying out the transformation with that profile which belongs to the actually used scanning device and the actual original type.

13. Apparatus according to claim 12, wherein the computer further comprises means for respectively assigning each of a number of different original types according to similarities of the spectral properties to one of a number of original categories and for selecting one type of original category for each original as master original means for storing a profile for each combination of master original and one of a number of different scanning devices, and whereby the computer is constructed for carrying out the color transformation with that profile which actually belongs to the actually used scanning device and to the master original of that original category to which the actual photographic original belongs.

14. Apparatus according to claim 11, wherein the computer includes a profile generation means for automatically creating a profile on the basis of image data of a digital test color picture and a reference color test picture.

15. Apparatus according to claim 10, further comprising quality control means for controlling the quality of the digital color picture.

16. Apparatus according to claim 15, the quality control means forming a quality measure by comparing digital test color pictures with corresponding digital reference test color pictures and causing a new calculation of the profile when the quality measure exceeds a preselected threshold value.

17. A color measurement strip for carrying out a process according to one of claims 1-9, comprising a color test image region with a relatively small number of color measurement fields, a color test card region with a relatively large number of color measurement fields and a visual test image region with at least one picture motif suitable for a visual color evaluation.

18. Color measurement strip according to claim 17, wherein the color test image region includes 12 color measurement fields in the additive and subtractive base colors, white, black and four different shades of gray respectively.